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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,995	10/30/2003	Martin Blanz	414-35879-USCP	7879

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EXAMINER
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SHRIVASTAV, BRIJ B

ART UNIT	PAPER NUMBER
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2859

DATE MAILED: 04/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/696,995

Applicant(s)

BLANZ ET AL.

Examiner

Brij B. Shrivastav

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26, 42-63 and 76-80 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26, 42-63 and 76-80 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2.18.04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Applicant has withdrawn claims 27-41, 64-75 and 81-86. The pending claims in the application are 1-26, 42-63 and 76-80.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Note: Rejection under 102(e) is because Examiner is unable to ascertain the application priority date as regards to continuatin-in-part application No. 09/910,209, filed on July 20, 2001.

2. Claims 1, 42 and 76 are rejected under 35 U.S.C. 102(b) or 102(e) as being anticipated by Blades et al (US 6,111,408).

As regards to claims 1 and 42, Blades et al teach an apparatus and a method for use in a borehole in an earth formation for obtaining nuclear magnetic resonance signals from a fluid obtained from said formation, including a nuclear magnetic resonance sensor (figure 1, numeral 26, as a receiver); a device for enhancing a polarization of a nuclear spin of a nucleus occurring in the fluid (figure 1, numeral 26, as a transmitter); and a processor for analyzing NMR signals obtained by the sensor from the fluid (figure 1, numeral 42; column 8, lines 25-52).

As regards to claim 76, Blades et al teach a system for obtaining nuclear magnetic resonance signals from a fluid obtained from an earth formation, including a logging tool with a nuclear magnetic resonance sensor (figure 1, numeral 26, the RF coil as a receiver coil); a conveyance device for conveying the fluid into a chamber of the sensor (figure 1, numeral 22, the inlet valve); an arrangement for enhancing a polarization of a nuclear spin of a nucleus occurring in the fluid (figure 1, numeral 26, the RF coil as a transmitter); a processor for detecting from signals obtained by the sensor a property of the fluid (figure 1, numeral 42, column 6, lines 25-53); and a conveyance device for conveying the logging tool into the earth formation (column 2, lines 25-53).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-26, 43-63 and 76-80 are further rejected under 35 U.S.C. 103(a) as being unpatentable over Blades et al (US 6,111,408) as applied to claims 1, 42 and 76 above, and further in view of Pines et al (US 6,426,058).

As regards to claims 2, 3, 4, 5, 14, 43, 44, 45, 46, 53 and 78 relating to Overhauser Effect, Nuclear Overhauser Effect and optical/laser pumping, Blades et al do not specifically further teach limitations expressed in each of these claims. However, Pines et al teach the limitations expressed in each of these claims (figure 3, 6, 12, 13;

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column 4, lines 13-34, column 7-8, lines 33-67 and 1-8, column 15, lines 42-61, column 17, lines 40-61, column 21, lines 19-29). It would have been obvious to one having ordinary skill in the art to adapt means and the method steps of Pines et al with the apparatus and method of Blades et al to broaden the base of the data acquired and improve data quality for fluid analysis.

As regards to claims 6, 9, 10, 12, 13, 47, 48, 49, 51, 52, 79 and 80 relating to polarizing agents, noble gases, including xenon, Blades et al do not specifically further teach limitations expressed in each of these claims. However, Pines et al teach the limitations expressed in each of these claims (figure 1, 2, 6, 8, 10; column 9, lines 6-39, column 13, lines 49-62; column 18, lines 43-60, column 26, lines 24-65; column 29, lines 34-67). It would have been obvious to one having ordinary skill in the art to adapt means and the method steps of Pines et al with the apparatus and method of Blades et al to broaden the base of the data acquired and improve the data quality for fluid analysis.

As regards to claims 11, 17, 19, 20, 21, 22, 23, 24, 26, 50, 56, 58, 59, 60, 61 and 63 relating C-13 and chemical shift, Blades et al do not specifically further teach limitations expressed in each of these claims. However, Pines et al teach the limitations expressed in each of these claims (column 8, line 48-58, column 15, lines 38-65). It would have been obvious to one having ordinary skill in the art to adapt means and the method steps of Pines et al with the apparatus and method of Blades et al to broaden the base of the data acquired and improve the data quality for fluid analysis.

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As regards to claims 7, 8, 15, 16, 18, 25, 54, 55, 57, 62, 77 relating to various aspects of apparatus and method steps, Blades et al further teach limitations expressed in each of these claims ( figure 1, 4; column 1-3, column 5, lines 21-67, 1-5, column 8, lines 25-53; column 9, 10, lines 32-67 and 1-21.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brij B. Shrivastav whose telephone number is 571-272-2250. The examiner can normally be reached on 7 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. F. Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 14, 2005

  
Brij B. Shrivastav  
Primary Examiner  
Art Unit 2859

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